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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/132,157 08/11/98 FORBES

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MMC2/0607
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EXAMINER

PRENTY, M	
ART UNIT	PAPER NUMBER

2822

25

DATE MAILED:

06/07/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/132,157

Applicant(s)
FORBES

Examiner
Prenty

Art Unit
2822



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 31, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11, 13, 14, 24-28, 32, and 38-43 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11, 13, 14, 24-28, 32, and 38-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

This Office Action is in response to the RCE filed January 31, 2001.

Claims 11, 14, 24, 28, 38 and 40 are rejected under 35 U.S.C. §102(b) as being anticipated by Selvakumar et al. (United States Patent 5,426,069 already of record). See Selvakumar et al's Figs. 1-13 disclosure in particular. With respect to claims 11, 14, 24 and 28, and their "p-channel" preamble language in particular, note that a claim's preamble is generally not given patentable weight. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976).

Claims 25, 32 and 41 are rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Selvakumar et al. (United States Patent 5,426,069 already of record). See Selvakumar et al's Figs. 1-13 disclosure in particular. Note MPEP §2113.

Claims 13, 26, 27, 39, 42 and 43 are rejected under 35 U.S.C. §103(a) as being unpatentable over Selvakumar et al. (United States Patent 5,426,069 already of record) together with Crabbe' et al. (United States Patent 5,821,577 already of record). Specifically, the difference between Selvakumar et al's transistor (see Selvakumar et al's Figs 1-13 disclosure in particular) and the transistor recited in the set of rejected claims is the former's SiGe channel thickness is unknown while the latter's SiGe channel thickness is "approximately 100 to 1,000 angstroms" (claims 13, 26, 39 and 42) or "approximately 300 angstroms" (claims 27 and 43). Crabbe' et al. disclose forming SiGe channels 100 to 500 angstroms thick (see column 6, lines 17-22). It would have been obvious to one skilled in this art to make Selvakumar et al's SiGe channel 100 to 500 angstroms thick as suggested by Crabbe' et al. Claims 13, 26, 27, 39, 42 and 43 are thus rejected under 35 U.S.C. §103(a) as being unpatentable over Selvakumar et al. together with Crabbe' et al.

The applicant's argument with respect to Selvakumar et al. is incorrect. Specifically, Selvakumar et al's SiGe channel region does, in fact, form an interface with the SiO₂ gate oxide. See Selvakumar et al's Figs. 5-7 together with column 4, lines 16-19 (i.e., "...interface between [the] silicon-dioxide [gate oxide] and the SiGe channel region"), and column 2, lines 25-28 (i.e., "...the SiGe region being surrounded by silicon on *most* of the surfaces...").

Registered practitioners can telephone examiner Prenty at (703) 308-4939. All other parties should telephone (703) 308-0956.


Mark V. Prenty
Primary Examiner